

## **SYNTHESIS AND METHODS OF USE OF PYRIMIDINE ANALOGUES AND DERIVATIVES**

### **ABSTRACT OF THE DISCLOSURE**

A pyrimidine derivative or analogue comprises an amino-substituted six-membered heterocyclic moiety, moiety A, linked through a linker L to a moiety B, where B is a carboxylic acid, a carboxylic acid ester, or a moiety of the structure  $N(Y_1)-D$ , where  $Y_1$  can be one of a variety of substituents, including hydrogen or alkyl, and D is a moiety that enhances the pharmacological effects, promotes absorption, or promotes blood-brain barrier penetration of the derivative or analogue. The moiety A can have two or three nitrogen atoms in the ring; typically, the moiety A is a pyrimidine moiety, with two nitrogen atoms in the ring. The moiety B can be one of a variety of moieties, including moieties having nootropic activity or other biological or physiological activity.